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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/730,011	12/05/2000	Richard Vandervoort Cox	1999-0767A	6590

7590 05/26/2004

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EXAMINER
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OPSASNICK, MICHAEL N

ART UNIT	PAPER NUMBER
2655	//

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/730,011

Applicant(s)

COX ET AL.

Examiner

Michael N. Opsasnick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2,4 and 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4,5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cong et al (6044343) in view of Li et al (5704004).

As per claim 2, Cong et al (6044343) teaches a method of generating speech coding parameters in a bitstream based front end of a speech recognition system (Fig. 1, subblocks 304,314,312,316) wherein an observation sequence is generated (Fig. 3, subblock 317, into 307, into 306) based on LSP calculations (col. 9 lines 40-65). Cong et al (6044343) also teaches the euclidean distance between the LSP of contiguous frames (col. 2 lines 63-66, and col. 6 lines 5-7).

Cong et al (6044343) does not explicitly teach a method for detecting an erased frame and deleting a frame based on thresholding parameter values, however, Li et al (5704004) teaches a method for defining a steady state threshold T (col. 6 lines 1-9 --

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equivalent as detecting an erased frame). Therefore, it would have been obvious to one of ordinary skill in the art of speech processing to modify the teachings of Cong et al (6044343) with thresholding and frame deletion because it would advantageously generate a new and shorter sequence of error-free vectors in order to save system processing time (Li et al (5704004), col. 1 lines 34-36).

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cong et al (6044343) in view of Li et al (5704004) in further view of Maeda (6230124).

As per claims 4,5, the combination of Cong et al (6044343) in view of Li et al (5704004) does not explicitly teach performing frame erasure based on an error in the most sensitive bits, especially based on lsp information and gain information, however, Maeda (6230124) teaches detecting an error by check code created from the most important bits, esp. lsp information and gain information (col. 2 lines 9,58-61; col. 2 line 9, table 1, col. 10 lines 10-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Cong et al (6044343) in view of Li et al (5704004) to detect a frame erasure based on error bits because it would improve the quality of the signal by preventing transmission path errors (Maeda (6230124), col. 1 lines 36-38,46-47).

***Response to Arguments***

4. Applicant's arguments filed 3/31/2004 have been fully considered but they are not persuasive. As per applicant's arguments that the invention is a bit-stream based recognition, examiner points to Cong et al (as referred to up above) with respect to bits (Fig. 3, subblocks 312,216,317, etc.). As to applicant's arguments with respect to the type of threshold in the present invention, examiner argues that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**6. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089, who is available Tuesday-Thursday, 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached at (703)305-4827. The facsimile phone number for this group is (703)872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (703) 305-4750, the 2600 Customer Service telephone number is (703) 306-0377.

mno

5/18/2004



**DORIS H. TO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**